BLM-2-482.4 CORE INTERVAL DESCRIPTION
430'-440'

~ 2' CORE RECOVERY

Cobble to Boulder Conglomerate (?) (Santa Fe Group):

Core recovery was of cobble or boulder fragments of carbonates, rhyolite and andesite. Carbonate clasts are dark gray (N9) to light olive gray (5Y 5/2) micritic limestone which contains some fine crystalline sparry calcite and possible altered allochems.

Rhyolite clasts are very pale orange (10YR 8/6) to white (N9) which contain some iron staining.

Andesite clasts are light greenish gray (5G 8/1) and contain plagioclase and biotite phenocrysts ranging from 0.5 mm to 7 mm in size. Andesite cobbles are brecciated, clasts contain a higher plagioclase and biotite content in a finer-grained matrix. Due to the collapse of core barrel, a complete core could not be successfully recovered, and it is believed that these are cobbles or boulders out of a conglomerate even though no matrix was recovered.

BLM-2-482.4 CORE INTERVAL DESCRIPTION
490'-500'

- 3' CORE RECOVERY

Volcanic Litharenite:

Pale red purple (5RP 6/2) to grayish red purple (5RP 4/2), poorly sorted, weakly indurated, massive litharenite to pebble conglomerate. The rock is a grain supported, coarse-grained sandstone to pebble conglomerate which consists of 95% volcanic rock fragments and 5% carbonates, granite, quartz and calcite. Individual grains range from fine sand to pebble size (0.12 mm to 60 mm) and are moderately rounded to angular in shape. The rock is poorly sorted with large grains intermixed with sand size particles and tangential grain contacts are common. The average grain size is approximately 4 mm. The rock displayed some grade bedding of the clasts over short intervals, but it is poorly bedded to massive overall.

The rock is poorly to moderately indurated with a combination of silt and carbonate cement. The rock is soft and friable overall, however, thin well-cemented (carbonate cement) zones do exist. Carbonate-cement grain coatings are common.

Clasts are predominantly grayish red purple (5RP 4/2) to blackish red (5R 2/2) aphanitic to porphyritic andesite. Small (less than 1 mm) subhedral to euhedral phenocrysts of plagioclase and biotite are present within an aphanitic groundmass. Some severe alteration of the andesite clasts to a greenish gray (5G 8/1) color is observed in some fragments. Andesite rock fragments make up approximately 90% of the total lithic clasts. Pinkish gray (5YR 8/1) to moderate yellow (5Y 7/6), aphanitic rhyolite makes up approximately 5% of the rock fragments. Other lithic fragments observed include massive limestone, sandstone, granite, quartz and calcite.

Visual porosity of roughly 25% is present with voids up to 3 mm in size. Pore interconnection is estimated to be high and rock conductivity is likely to be high enough to transmit reasonable quantities of water.